MA 33 L (88) -1

CURRENT INDUSTRIAL REPORTS

Insulated Wire and Cable

1988

U.S. Department of Commerce
BUREAU OF THE CENSUS

MA33L(88)-1
Issued November 1989

SUMMARY OF FINDINGS

In 1988, the total value of manufacturers' shipments of insulated wire and cable increased by 16 percent to $10,607 million from the 1987 level of $9,128 million. Electronic wire and cable increased by 13 percent to $1,879 million from the 1987 level of $1,662 million. Telephone and telegraph wire and cable increased by 15 percent to $1,696 million compared to $1,464 million in 1987. Power wire and cable increased by 25 percent to $1,503 million compared to $1,201 million in 1987. In 1988, control and signal wire and cable increased by 16 percent to $256 million compared to the preceding year's figure of $221 million. Building wire and cable increased by 18 percent to $2,224 million from the 1987 level of $1,890 million. Other insulated wire and cable increased by 5 percent to $559 million compared to $532 million in 1987. Apparatus wire and cordage and flexible cordage decreased by 1 percent to $850 million from the 1987 level of $849 million. Magnet wire had a value of shipments for 1988 of $991 million, a 40-percent increase over the 1987 value of $703 million. Optical fiber cable showed a 7-percent increase in 1988 shipments of $649 million as compared to 1987 with a $607 million value.

Adescription of the survey methodology and related information appears on page 8.

Table 1. SUMMARY OF SHIPMENTS OF INSULATED WIRE AND CABLE: 1988 AND 1987

(Value in thousands of dollars)

Product code	Product description	1988	1987
	Insulated wire and cable	10,606,741	9,127,720
33572A --	Electronic wire and cable	1,879,112	r1,661,612
33572B --	Telephone and telegraph wire and cable	1,695,751	1,464,106
33572E --	Power wire and cable	1,503,119	1,201,393
33572C --	Control and signal wire and cable	255,460	r220,661
33572D --	Building wire and cable	2,224,343	1,889,525
33572G --	Apparatus wire and cordage	850,373	r849,406
33572H --	Other insulated wire and cable	558,622	r531,602
33572F --	Magnet wire	991,396	r702,782
33572K --	Optical fiber cable	648,565	606,633

rRevised by 5 percent or more from previously published figures.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Robert Wright, (301) 763-5547.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

C 3.158:

Table 1. SHIPMENTS OF INSULATED WIRE AND CABLE: 1968 AND 1967

(Copper content in thousands of pounds; value in thousands of dollars)

Product code	Product description	Number of establishments	Shipments, including interplant transfers			
			1968		1967	
			Copper content	Value	Copper content	Value
3357- pt.	Insulated wire, except bonded wire	142	1,118,217	1,466,780	[r]2,566,054	[r]1,818,303
3357A --	Electronic wire and cable	144	211,836	1,479,112	[r]212,820	[r]1,661,612
	Coaxial cable, assembled or unassembled					
3357A 11	Rigid	3	[r]1,171	[r]5,546	[r]1,316	[r]10,714
3357A 12	Semirigid	14	4,218	137,140	5,536	[r]254,076
	Flexible:					
3357A 13	125 C and over	4	247	14,841	[r]3,731	[r]83,312
3357A 14	Under 125 C	29	17,513	259,544	[r]23,243	251,827
3357A 15	CATV broadcast coaxial cable	4	4,271	34,243	14,337	[r]43,008
3357A 20	Hookup lead wire	21				
	Hookup wire (single conductor, shielded and unshielded):					
3357A 31	125 C and over temperature rating	29	11,347	100,723	[r]16,229	[r]237,447
3357A 35	Under 125 C temperature rating	49	24,126	192,144	[r]23,277	[r]116,722
	Multiconductor electronic wire and cable (shielded and unshielded):					
3357A 39	Flat cable	11	14,449	97,194	[r]24,971	83,959
3357A 40	Ribbon cable	4				-
	Other multiconductor electronic wire and cable:					
3357A 45	Shielded	33	14,805	98,111	[r]33,164	[r]341,999
3357A 49	Unshielded	19	4,278	36,734	73,968	[r]36,249
3357 B --	Telephone and telegraph wire and cable	144	114,377	1,441,111	[r]201,518	1,494,106
3357B 41	Lamp cord and fixture wire	4	6,501	46,113	[r]13,561	[r]43,871
3357B 42	Station wire and cable	11	4,750	393	4,451	[r]17,997
3357B 43	Switchboard wire and cable	3	132	708	133	733
3357B 44	Telephone inside wire and cord	8	1,243	736	1,151	47,294
3357B 45	Inside wiring cable	6	41,041	1,106	61,734	127,129
3357B 46	Drop and service wire and duct wire	4	1,751	1,144	[r]3,915	[r]108,167
3357B 47	Aerial and other distribution wire and cable	11	53,959	11,041	[r]74,158	[r]31,425
3357B 48	Telephone-to-customer exchange wire and trunk cable	11	101,448	1,377,438	[r]134,421	[r]425,381
3357B 49	Other telephone and telegraph wire and cable	3	133	133	133	133
3357C --	Power wire and cable	141	744,744	1,011,111	847,744	1,201,393
3357C 51	Paper insulated cable (1-35 kilovolts, 3- conductor, 3-wire)	3	11,471	14,141	[r]7,941	11,474
	Other wire and cable (insulated):					
	For use in air:					
3357C 71	Overhead bare conductor	11	4,741	14,111	11,199	14,599
3357C 72	Overhead bare and insulated cable and wire	4	14,114	171,411	11,111	14,141
3357C 73	Underground distribution cable (15 kv. and over)	4	1,111	14,111	1,141	14,111
3357C 74	Underground distribution power cable (1-15 kv.)	4	4,114	4,111	11,414	14,414
	Thermoset insulated:					
3357C 81	Asbestos, rubber and thermoplastic	11	11,141	11,141	11,141	14,141
3357C 82	Elastomeric, rubber	11	14,114	11,141	14,141	14,114
3357C 83	Elastomeric, thermoplastic	11	4,111	14,111	4,111	14,111
3357C 84	Polyolefin, rubber	11	1,111	11,111	1,111	11,111
3357C 85	Polyolefin, thermoplastic insulation	11	11,111	11,111	11,111	11,111
	Thermoplastic insulated cable:					
	Used for wire to wire:					
3357C 91	Asbestos, rubber and thermoplastic	11	11,111	11,111	11,111	14,141
3357C 92	Elastomeric, rubber	11	11,111	11,111	11,111	14,111
3357C 93	Elastomeric, thermoplastic	11	11,111	11,111	11,111	11,111
	Used in air:					
3357C 94	Rubber	11	111	1,111	111	11,111
3357C 95	Thermoplastic	11	111	1,111		
3357C 99	Other power wire and cable	4	111	1,111	111	1,111
3357D --	Control and signal wire and cable	141	11,111	11,111	[r]11,111	[r]111,111
3357D 01	Signal wire and cable	11	11,111	111,111	11,111	[r]11,111
	Control wire and cable (excluding elevator cables):					
3357D 11	Thermoset insulated, rubber	11				
3357D 12	Thermoset insulated, other than rubber or polyolefin	11	11,111	11,111	[r]11,111	[r]11,111
3357D 14	Thermoplastic insulated	11	11,111	11,111	[r]11,111	[r]11,111

See footnotes at end of table.

Table 2. SHIPMENTS OF INSULATED WIRE AND CABLE: 1988 AND 1987--Continued

(Copper content in thousands of pounds; value in thousands of dollars)

Product code	Product description	Number of companies	Shipments, including interplant transfers[1]			
			1988		1987	
			Copper content[2]	Value	Copper content[2]	Value
33570 —	Building wire and cable	(NA)	1,120,356	2,224,343	1,180,511	1,889,525
	Building wire and cable having underwriters' labels:					
	Thermoset insulated:					
33570 36	Rubber (R, RH, RHH, RHW, USE, etc.)	4	45,918	126,681	41,050	82,492
33570 37	Cross-linked polyethylene (XHHW)	16				
33570 38	Cross-linked polyethylene (USE)	10	20,740	66,263	r18,378	r46,925
	Thermoplastic insulated:					
33570 40	Flame-retardant nylon (THHN, THWN)	22	509,417	924,626	r510,623	717,728
33570 41	Moisture resistant (TW)	7	1,810	1,733	r2,910	r5,361
33570 48	Moisture and heat resistant (THW)	19	148,843	233,322	165,332	r205,225
33570 51	Service entrance cable (SER, SEU, ASE)	12	7,210	113,771	11,112	89,748
	Nonmetallic branch-circuit and underground feeder:					
33570 54	Type NM	13	327,422	565,046	375,465	556,165
33570 55	Type UF and NMC (corrosion resistant)	13	28,603	59,585	27,366	89,713
33570 57	Metallic armored cable (all AC types)	9	29,801	121,612	27,209	108,727
33570 58	Other building wire and cable	10	41,392	89,904	r866	r7,441
33576 —	Apparatus wire and cordage[3]	(NA)	212,776	850,373	231,235	849,406
	Flexible cordage:					
33576 11	Thermoset insulated	13	13,780	60,600	14,869	52,477
33576 16	Thermoplastic other than thermoplastic elastomers	16				
33576 17	Thermoplastic elastomers	4	28,439	82,799	26,964	78,376
33576 42	Extension cord sets	13	29,811	220,960	41,212	r208,572
33576 43	Fixed power supply cords	27	21,215	114,359	r28,228	r140,840
33576 44	Detachable power supply cords	3	6,246	21,919	1,004	12,695
33576 47	Retractile power cords and other	5				
33576 21	Appliance fixture wire	26	40,464	137,537	36,482	136,603
	Appliance wiring material (4 gauge and larger (including motor lead and transformer lead wire)):					
33576 29	Thermoset insulated	12	12,532	44,661	7,862	25,388
33576 24	Thermoplastic insulated	25	37,411	94,171	45,852	r106,985
33576 28	Submersible pump cable	7	4,547	11,053	r8,312	r16,476
33576 29	Other apparatus wire and cordage (including machine tool wire)	19	18,311	62,314	20,450	70,996
33579 —	Other insulated wire and cable	(NA)	366,598	558,622	r365,406	r581,602
	Automotive:					
33579 71	Bulk automotive primary wire	16	85,180	191,764	r74,483	r139,137
33579 74	Bulk battery cable	9	10,472	25,788	9,170	18,316
33579 76	Bulk ignition wire	4	(D)	(D)	(D)	(D)
33579 78	Other automotive wire and cable	12	29,081	86,717	r29,065	r93,848
33579 79	Elevator hatch and traveling cable	1	(D)	(D)	(D)	(D)
	Airframe, shipboard and ground support cable (excluding coaxial cable and ignition cable):					
33579 79	Airframe and missile (including ground support cable)	16	6,084	49,827	5,666	46,757
	Shipboard cable:					
33579 82	Military applications	11	7,493	45,874	10,460	r58,036
33579 84	Nonmilitary applications	—	—	—	—	—
33579 99	Other insulated or covered wire and cable N.e.c.	16	13,070	85,209	r18,647	r99,132

Note: The percent of estimation of each item is indicated as follows (see "Description of Survey" in the text) [a]25 percent of this item is estimated).

— Represents zero. (D) Data withheld to avoid disclosing figures for individual companies. (NA) Not available. N.e.c. Not elsewhere classified. pt. Part. rRevised by 5 percent or more from previously published figures.

[1]Interplant transfers for 1988 totaled 145,089 thousands of dollars and for 1987 totaled 425,587 thousands of dollars. See table 6 for additional data.

[2]Aluminum content for 1988 totaled 114,918 thousands of pounds and for 1987 totaled 160,731 thousands of pounds. See table 3 for additional data.

[3]Data include the following: (a) all known establishments which insulate wire and cable and then fabricate into finished products, (SIC product class 33576), and (b) a sample from product class 36996, of establishments manufacturing appliance wire, cord, and flexible cord sets from purchased insulated wire.

Reproduced from poor document

Table 5. ALUMINUM SHIPMENTS OF MAGNET WIRE, INCLUDING INTERPLANT TRANSFERS: 1988 AND 1987

(Aluminum gross weight in thousands of pounds; value in thousands of dollars)

Product code	Product description	Number of companies	Shipments, including interplant transfers[1]			
			1988		1987	
			Gross weight	Value	Gross weight	Value
33577 —	Magnet wire	(NA)	47,174	108,092	44,007	r82,154
33577 pt.	Film coated, (44 to 7 AWG and larger)	(NA)	43,821	100,607	41,161	r76,845
33577 1-	Class 105	4	17,761	41,961	r16,013	r31,021
33577 2-	Class 130	5				
33577 3-	Class 155	7				
33577 4-	Class 180	5	12,084	26,775	13,122	22,833
33577 5-	Class 200	7	13,976	31,891	12,026	22,991
33577 6-	Class 220	4				
33577 pt.	Other types of magnet wire (nonfilm coated; insulated magnet sheet, strip, and foil; and film coated, 45 AWG and finer)	6	3,353	7,485	r2,846	5,309

(NA) Not available. pt. Part. rRevised by 5 percent or more from previously published figures.

[1]Interplant transfers for 1988 totaled 17,857 thousands of pounds of aluminum and for 1987 totaled 17,672 thousands of pounds of aluminum.

Table 6. VALUE OF INTERPLANT TRANSFERS OF SELECTED INSULATED WIRE AND CABLE: 1988 AND 1987

(Thousands of dollars)

Product code	Product description	Number of companies	1988	1987
3357- pt.	Insulated wire, except magnet wire	(X)	346,089	r425,587
3357A —	Electronic wire and cable	18	98,158	r131,049
3357B —	Telephone and telegraph wire and cable	6		
3357C —	Power wire and cable	8	59,396	r60,771
3357D —	Control and signal wire and cable	3	10,096	r20,007
3357E —	Building wire and cable	3		
3357G —	Apparatus wire and cordage	12	75,190	r71,040
33576 23	Appliance fixture wire	4	12,181	2,176
33576 24	Appliance wiring material—thermoplastic insulated	5	10,811	12,519
3357H —	Other insulated wire and cable	9	63,776	87,007
33578 74	Bulk battery cable	3	(D)	6,650
33578 76	Bulk ignition wire	4	(D)	24,368

(D) Data withheld to avoid disclosing figures for individual companies. pt. Part. rRevised by 5 percent or more from previously published figures. (X) Not applicable.

Table 7. VALUE OF SHIPMENTS OF FIBER OPTIC CABLE: 1988 AND 1987

(Thousands of dollars)

Product code	Product description	Number of companies	1988	1987
33579 —	Insulated optical fiber cable	(X)	668,365	606,633
33579 pt.	Communication applications	(X)	526,288	532,591
33579 12	Single-mode stepped-index, dispersion shifted	5	13,963	27,089
33579 13	Single-mode stepped-index, dispersion unshifted	12	492,785	r461,224
33579 14	Multi-mode stepped index	6	69,340	r44,278
33579 15	Multi-mode graded index	14		
33579 21	Other applications	7	72,277	74,042

pt. Part. rRevised by 5 percent or more from previously published figures. (X) Not applicable.

Reproduced from poor document

Table 5. COMPARISON OF VALUE OF SHIPMENTS OF INSULATED WIRE AND CABLE, AS REPORTED IN THE 1967, THE 1967 CENSUS OF MANUFACTURES, AND THE 1968 ANNUAL SURVEY OF MANUFACTURES

(Value in thousands of dollars)

Product code	Product classification	1967		1968		
		Mail.	Census of Manufactures[1]	Mail.	Annual Survey of Manufactures[2]	
					Value	Standard error of estimate[3]
33978	Electronic wire and cable	1,441,6	1,501,3	1,479,3	1,377,1	*
33978	Telephone and telegraph wire and cable	1,484,1	1,481,4	1,330,3	1,181,5	*
33978	Power wire and cable	1,000,7	1,076,1	1,044,7	1,042,3	*
33978	Control and signal wire and cable	1,444,1	1,445,7	1,445,3	1,430,4	1
33978	Building wire and cable	1,444,1	1,445,7	1,445,3	1,430,4	1
33978	Other insulated wire and cable	511,6	520,4	430,4	484,4	-
33978	Apparatus wire and cord and flexible cord	444,4	1,037,1	434,4	1,040,4	1
33978	Switchboard wire and cable	444,4	1,037,1	434,4	1,040,4	1
33978	Magnet wire	744,8	441,4	441,1	479,1	*
33978	Power wire and cable	1,344,4	1,141,8	1,344,4	1,145,4	1
33978	Other wire and cable	444,4	444,4	444,4	444,4	1

*Preliminary.

Source: 1968 Annual Survey of Manufactures Value of Product Shipments, MA-33(71).

[1] The annual survey of manufactures percentage standard errors shown are the approximate relative errors of the estimates of level. A more detailed description of the standard errors of estimate is given in the introduction of the annual survey of manufactures, Value of Product Shipments, MA-33(71), under "Qualification of the data."

[2] See footnote 1 at end of table 4.

Table 6. SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF INSULATED WIRE AND CABLE: 1968 AND 1967

(Value in thousands of dollars)

Product code	Product classification	Manufacturers' shipments (value f.o.b. plant)	Exports of domestic merchandise		Percent exports to manufacturers' shipments	Imports for consumption[4]	Apparent consumption[5]	Percent imports to apparent consumption
			Value at port[6]	Estimated producers' value[7]				
	1968							
	Insulated wire and cable	11,438,741	447,134	441,174	3.9	1,344,704	12,111,471	9.9
33978	Electronic wire and cable	1,479,113	142,771	134,144	9.7			
33978	Telephone and telegraph wire and cable	1,441,771	74,934	71,474	5.2			
33978	Power wire and cable	1,111,114	44,141	41,411	4.1			
33978	Building wire and cable	1,111,141	11,411	11,474	1.1			
33978	Control and signal wire and cable	111,411	117,411	111,117	14.7	1,344,704	12,111,471	9.9
33978	Other insulated wire and cable	114,411						
33978	Apparatus wire and cord and flexible cord	411,111	41,111	11,141	4.1			
33978	Switchboard wire and cable	441,114	17,411	14,411	1.1			
33978	Magnet wire	441,141	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33978	Building sheet cable	441,111						
	1967							
	Insulated wire and cable	9,111,111	411,114	411,111	4.1	414,414	9,111,411	9.1
33978	Electronic wire and cable	1,441,411	111,141	91,144	7.9			
33978	Telephone and telegraph wire and cable	1,444,114	41,414	11,141	2.1			
33978	Power wire and cable	1,111,141	11,111	11,111	1.1			
33978	Building wire and cable	1,444,111	4,411	4,411	.1			
33978	Control and signal wire and cable	111,411	111,114	114,111	14.1	414,414	9,111,411	9.1
33978	Other insulated wire and cable	111,411						
33978	Apparatus wire and cord and flexible cord	444,411	14,411	11,144	3.1			
33978	Switchboard wire and cable	111,141	11,111	11,411	1.1			
33978	Magnet wire	411,111	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
33978	Building sheet cable	411,111	(NA)	(NA)	(NA)			

(NA) Not available. *Revised by 5 percent or more from previously published figures.

Source: Bureau of the Census data relating to SIC Code, 3478, Exports (see table 4 for a comparison of SIC-based index and import and export summary).

[1] This dollar value represents the c.i.f., (cost, insurance, and freight) value to port of export.

[2] These values are derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1958 which are published in Exports from Manufacturing Establishments, 1958-61, Appendix B. The future adjustment factor for this report is 0.8444.

[3] Source: Bureau of the Census data relating to SIC Code, 3478, Imports for consumption. These figures include both import value and duty value.

[4] These import data include other items such as Christmas tree lights, ignition harness sets, ignition wiring sets, etc.

[5] Apparent consumption is derived by subtracting exports from the total of manufacturers shipments plus imports (excluding duty). Estimated producers' value is used in the calculation of these data.

[6] The manufacturers' shipments for power wire and cable include mineral and paper insulated cable, while the export figures do not.

Table 10. COMPARISON OF SIC-BASED PRODUCT CODES AND IMPORT AND EXPORT NUMBERS: 1988

Product code	Product Description	Export number[1]	Import number[2]
3357A	Electronic wire and cable	688.0240	688.0410,688.0415,688.0425,688.0430, 688.0450,688.0465,688.0500,688.0600, 688.0700,688.1700,688.1800,688.1900
3357B	Telephone and telegraph wire and cable	688.0220	
3357G	Power wire and cable	688.1420, 688.1450	
3357D	Building wire and cable	688.1700	
3357C	Control and signal wire and cable	688.1900	
3357E	Other insulated wire and cable		
3357G 36996	Apparatus wire and cord and flexible cord sets	[3]688.0800	
33577	Magnet wire	688.1820, 688.1840, 688.1860	
33579	Optical fiber cable	*708.0110	*707.9010

* Part of this code is comparable.

[1]Source: Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States, revised January 1987.
[2]Source: Tariff Schedule of the United Sates Annotated (TSUSA), 1987.
[3]Overstated because of the inclusion of manufacturers in product code 36996.

Reproduced from poor document

DESCRIPTION OF SURVEY

Scope of Survey. This survey covers companies engaged in manufacturing insulated wire and cable and/or fabricating appliance wire, cord, or flexible cordage from purchased insulated wire.

Survey Methodology. The statistics in this publication were collected by mail on Bureau of the Census annual Form MA33L, Insulated Wire and Cable. The survey panel includes all known insulators of wire and cable, as well as the largest producers of appliance wire, cord, and flexible cord sets from purchased insulated wire as measured by the dollar value of shipments from the 1987 Census of Manufactures. No estimate is included for the smaller fabricators. The total number of companies is approximately 220.

Reliability of Data. Survey error may result from several sources: (1) inability to obtain information about all cases in the survey; (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data obtained; and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail logic edits. Missing figures are imputed based on yearly movements shown by reporting firms. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is not precisely known, but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revisions to Previous Period Data. Statistics for previous years may be revised as the result of corrected data from respondents, late reports for which imputations were made as described above, or other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Revisions include changes to prior period data resulting from reconciliation of the results of this survey with the 1987 Census of Manufactures to correct differences in reported data between the two series and to identify and verify new establishments included in the scope of this survey. Table 8 presents a comparison of data from the two series by census product class following the reconciliation.

Adjustment for Price Change. All dollar figures included in this publication are in current dollars; i.e., they have been adjusted for price change.

EXPLANATION OF TERMS

Quantity and Value of Shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Gross Weight. Includes insulating materials but excludes packaging materials.

AWG. American Wire Gauge.

Dual Rated Products. All dual rated products are classified according to their highest ratings.

Multi-Insulated Cables. All multi-insulated cables are classified according to their primary insulation, i.e., the layer of material designed to do the electrical insulating, usually the first layer of material applied over the conductor.

Insulated Wire and Cable. All insulated wire and cable for transmitting electrical energy, signals, or communications. Excludes bare and tinned wire and cable and Aluminum Cable Steel Reinforced (ASCR).

Magnet Wire (Including Insulating Magnet Strip Conductor). All insulated wire of the type generally used in the winding of coils, including Litz wire and including insulating magnet sheet, strip, and foil. The thermal classification for bondable wires are determined by the underlying insulation. Also, the combination (film fabric) product is classified based on the insulation on the top side.

Electronic Wire and Cable. All single and multiconductor wire and cable used for transmission, reception, or reproduction of electrical frequencies (16 gauge and smaller). Excludes telephone cable. See "apparatus wire and cable" for larger gauges.

Telephone Wire and Cable. All wire and cables used in the telephone industry to transmit, receive, and monitor communications signals. Excludes coaxial and other electronic wire and cable.

Power Wire and Cable. All insulated wire and cable used for the transmission and distribution of electrical energy. Excludes communications, aircraft, and marine types.

Control and Signal Wire and Cable. All insulated wire and cable used to transmit signals to control and actuate relays, valves, servo-mechanisms and related devices, including traffic control cable and fire alarm cable. Excludes elevator hatch and traveling cable.

Building Wire and Cable. All wire and cable (600 volts or less) having UL labels, used within structures for light and power.

Apparatus Wire and Cordage. Insulated wire and cable used in connecting electrical apparatus to a power source, and appliance wiring material (14 AWG and larger) used for internal wiring. See "electronic wire and cable" for appliances wiring material smaller than 14 AWG.

Other Insulated Wire and Cable. Includes bulk automotive battery and ignition wire, elevator hatch and traveling cable, airframe, shipboard, and ground support cable.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; on the other hand, the export and import classification system is more materials oriented. Also, there are a substantial number of imported commodities which have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to the problems mentioned above, there are also the following problems affecting the comparability of the three sets of data.

Valuation. There are different methods of valuation for the three types of data:

- *Domestic Output.* Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.
- *Exports.* Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance and other charges to the export point.

  Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.
- *Imports.* Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Duplication in Quantity and Value of Output. Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at fourdigit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

Low-Value Export and Import Transactions. Detailed commodity information is not included for individual export shipments valued at not more than $1,500. Generally, detailed commodity information is not included for individual import shipments valued at not more than $1,000. For textiles and textile products, gloves, footwear, and miscellaneous rubber and plastics products, detailed commodity information is not included for individual import shipments valued at not more than $250. This is believed to have only negligible effects on the statistics for the bulk of the commodities.

Manufacturers' Shipments, Not Specified by Kind. The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

Time Lag Between Output and Exports. There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

"Direct" vs "Total" Commodity Exports and Imports. Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

Used Commodities. With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

Reproduced from poor document.

Geographic Area of Coverage. Import and export data reflect the movement of merchandise into and out of U.S. foreign trade zones, the U.S. Virgin Islands, and the U.S. customs territory (includes the 50 States, the District of Columbia, and Puerto Rico).

HISTORICAL NOTE

Data on insulated wire have been collected by the Bureau of the Census since 1965. Historical data may be obtained from Current Industrial Reports available at your local Federal Depository Library. A list of these libraries may be obtained from the Bureau of the Census regional offices:

Office	Telephone
Atlanta, Georgia	(404) 347-2271
Boston, Massachusetts	(617) 223-2327
Charlotte, North Carolina	(704) 371-6142
Chicago, Illinois	(312) 353-6251
Dallas, Texas	(214) 767-0621
Denver, Colorado	(303) 236-2200
Detroit, Michigan	(313) 226-7742
Kansas City, Kansas	(816) 374-4601
Los Angeles, California	(213) 209-6616
New York, New York	(212) 264-3860
Philadelphia, Pennsylvania	(215) 597-4920
Seattle, Washington	(206) 442-7828

Historical data are also available on microfiche. For further information contact the Bureau of the Census, Data User Services Division, (301) 763-4100.

RELATED REPORTS

The Bureau of the Census publishes the following related reports:

Series	Frequency	Title
Current Industrial Reports		
M33D	Monthly	*Aluminum Ingot and Mill Products*
Other Industry Reports		
M3-1	Monthly	*Manufacturers' Shipments, Inventories, and Orders*
(AS)	Annually	Annual Survey of Manufactures (ASM)
(MC)	Quinquennially	Census of Manufactures
Foreign Trade Reports		
EM 546 FT 446	Monthly Annually	*U.S. Exports—Schedule B—Commodity by Country*
IM 146 FT 246	Monthly Annually	*U.S. Imports for Consumption—TSUSA—Commodity by Country*

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report MA33L	Robert Wright	(301) 763-5547
Manufacturers' Shipments, Inventories, and Orders	Ruth Runyan	(301) 763-2502
Classification Systems Comparability	Francis McCormick (ESD)	(301) 763-1935
Foreign Trade	Trade Data Inquiries Staff (FTD)	(301) 763-5140
Census/ASM	Mendel Gayle	(301) 763-7123
International Trade Administration	Robert C. Reiley	(202) 377-0575
To order a Current Industrial Report	Superintendent of Documents (GPO)	(202) 783-3238
To subscribe to a Census Bureau publication	Superintendent of Documents (GPO)	(202) 275-3054

ACKNOWLEDGMENTS

This report was prepared in the Industry Division, Bureau of the Census, under the direction of Malcolm E. Bernhardt, Chief, Current Durables Branch, and Milbren Thomas, Chief, Metals Section. Robert Wright was directly responsible for the review of the data and preparation of the report. Gaylord Worden, Chief of the Division, and Robert N. Tinari, Assistant Chief for Current Industrial Reports, provided overall direction and coordination to this project.

WHO'S HELPING OUT?

WHO'S BEING HELPED?

What are the odds of providing financial support for another adult outside the household? For a child? For both?

How does marital disruption affect the likelihood of providing support?

What is the ratio of the retirement-age population to the working-age population? What will the ratio be in 2010? In 2030?

Which group of persons made the highest support payments? How much were the payments?

Now Available !

This is one of a series of reports from the **Survey of Income and Program Participation** providing data on specific policy-related issues. Order your copy of this P-70, No. 13 report from the U.S. Government Printing Office (Stock No. 803-044-00001-5) $2.25.

Other recent reports in this series available from Superintendent of Documents, U.S. Government Printing Office (202/783-3238) are:

P-70, No. 12
Pensions: Worker Coverage and Retirement Income:1984
(Stock No. 703-088-00011-2) $2.75

P-70, No. 11
What's It Worth? Educational Background and Economic Status: Spring 1984
(Stock No. 703-088-00010-4) $2.75

P-70, No. 10
Male-Female Differences in Work Experiences, Occupation and Earnings: 1984
(Stock No. 703-088-00009-1) $2.75

P-70, No. 9
Who's Minding the Kids? Child Care Arrangements: Winter 1984-1985
(Stock No. 703-088-00008-2) $2.75

Reproduced from poor document

U.S. Department of Commerce
BUREAU OF THE CENSUS
Washington, D.C. 20233

Official Business
Penalty for Private Use, $300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
CENSUS
PERMIT No. G-58